



Background and consequences of scavenging: a study on child scavenging in Tehran and its suburbs

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Abstract

Children in Tehran are engaged in various forms of labour, including scavenging, which is considered to be one of the worst forms of child labour. Scavenging by children is prevalent in Tehran, inflicting substantial harm to children and breaking various national and municipal rules and regulations. The purpose of this research is to examine the causes and repercussions of children scavenging in Tehran, as well as to propose a theory in this field. To do this, grounded theory was applied as a methodology, and interview and observation techniques based on purposeful and theoretical sampling methods were used to collect data. Also, to construct a theory, the literature in this field was reviewed. The study population consisted of scavenging children and adults. The three-step coding-and-analysis process described by Corbin and Strauss was used to code the data. The findings point to three contexts that have led to a rise in children scavenging: economic, such as poverty and the waste economy; socio-cultural, in the form of family settings and social networks; and policy-setting, such as waste-management regulations and practices. Eliminating child scavenging in Tehran necessitates a series of policy interventions in Afghanistan and waste management in Tehran; some recommendations are presented at the end of the paper.

Keywords Worst forms of child labour · Scavenging · Children · Grounded theory

Introduction

Various forms of child labour, including child scavenging, are evident today in Tehran. For decades, scavenging has been one of the worst forms of child labour in Tehran, and its scope has grown to the point where it has become a social issue as well as a violation of children's rights. Despite the laws of the country and the guidelines for waste management, some children are involved in this job.

The appropriate age for any job is determined mostly by the job's impacts on the worker's health and development. As the governing international legislation, the International Labour Organization's Convention No. 138 stipulates a minimum age for specific occupations.

UNICEF defines child labour as work that exceeds a minimum number of hours, depending on the age of a child and the type of work. Such work is considered

harmful to the child and should, therefore, be eliminated. In many parts of the world, child labour is seen as a violation of children's rights [1].

Employers and family members continuously expose working children to exploitation, abuse and violence [2].

The adverse impacts of scavenging on children are amplified because they are one of society's most vulnerable populations. These impacts are a set of interconnected effects on all aspects of a child's life, which restrict their access to school and future employment opportunities, as well as endangering their physical, mental, social and spiritual well-being.

Child labour is considered harmful and is prohibited for a variety of biological, social and legal reasons; however, despite the recognition of this undeniable rule, child labour and child scavenging are still visible in various streets and centres of Iranian cities. The majority of these people are immigrants who have unavoidably and illegally entered and continue to enter Iran as a result of war, instability and a lack of economic opportunities. Child scavenging is more common in Tehran than in other places, while it is considered one of the worst forms of child labour as it is a 'work that deprives children of their childhood, their potential, and their

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dignity, and that is harmful to physical and mental development' [3].

Furthermore, although the Iranian Government has signed the Universal Declaration of the Rights of the Child and accepted the commitments against child labour and scavenging, this group of children has not been fully recognized over the years and the phenomenon of child labour and scavenging has become widespread. The Declaration and similar conventions prohibit all forms of child labour, including its worst forms. The employment of children under the age of 15 is likewise prohibited by Iranian Labour Law, Article 79. Employing a child under the age of 15 is a breach of the Labour Law, and the employer will be penalised. Additionally, the legislature stipulates in Article 84 of the Labour Law that the minimum working age for trainees and adolescents in occupations and jobs that are harmful to health or morals will be 18 years, as assessed by the Ministry of Cooperatives, Labour and Social Welfare.

Even though child labour is illegal in Iran, many children, particularly in Tehran, work as scavengers. The significant turnover in this industry indicates the presence of mafia-like contractors who employ children and establish the grounds for their exploitation.

Given the fact that scavenging by children is frequent in Tehran, this study aims to investigate the problem by focusing on its causes and implications and by seeking answers to the following questions:

- In Tehran's garbage industry, how are social relations defined?
- What are the grounds for and causes of children scavenging in Tehran?
- What are the repercussions of children scavenging?

Research background

Waste materials have been essential and useful to people from the day they understood they could recycle them. Recyclable materials found even more importance with the dawn of the modern era and the industrial-level manufacturing and consumption of sustainable goods. As human settlements have become more urbanised, the collection and management of urban garbage has turned into one of the most essential urban issues and a top-priority city-management concern [4]. As a result of population growth and a new rise in the manufacture and consumption of goods, waste management has turned into an essential component of urban viability.

Developing countries also generate significant volumes of waste, which is often exacerbated by weak management, insufficient resources and little technical capacity [5], leading to the emergence of an informal sector for the exploitation of this rich field. Therefore, the task of waste recycling

is conducted by informal sectors in many developing countries. Apart from the formal waste-management sector, an estimated 15 million people in the informal waste-management sector are working to recycle mixed garbage [6]. Furthermore, according to current estimates, Iran produces about 50,000 tons of waste per day, with cities like Tehran responsible for about 7500 metric tons per day [7, 8]. According to Afrakhteh and Hojjatipour [9], the amount of added value that dry garbage generates in this metropolis is between 22 billion and 400 million Rials per day.

The International Labour Organization (ILO) plays a vital role in researching, monitoring, and reporting child labour trends worldwide. Through comprehensive methodologies and engagement with national statistical offices, the ILO generates critical data and estimates on the prevalence of child labour globally and by region [11]. Their recurrent reports on findings and trends over 4-year intervals offer insights into progress as well as ongoing challenges [12]. The most recent Global Estimates released in 2017 indicated that over 150 million children were engaged in child labour in 2016, with almost half of them in hazardous work [13]. The ILO's longstanding dedication to measuring child labour provides an authoritative foundation for policy and advocacy efforts to combat this problem. Their global and national estimates underline both the pervasive scale of the issue as well as the urgency of interventions to protect children from exploitation.

Poverty is one of the main drivers behind people resorting to garbage-collection jobs. Since children must labour to support their families, scavenging is a survival skill for them and their families. Families also engage their children in such labours to meet their basic needs and requirements. In a study on children who scavenge, Hunt [14] observed that these children are primarily from low-income households—for example, some of them have malnourishment and other health issues. They do not attend formal school, and, if they do, they are likely to be dismissed. In some cases, their parents have died or left home or are unemployed and collecting garbage, as well. Scavenging is a survival strategy for these children because they live in such poor conditions [14, 15]. Concerning poverty and child labour, Basu and Van demonstrate how parents push their children to work if household wages or incomes are insufficient, because children's income may be added to the existing household income to allow parents to fulfil their fundamental living requirements [16].

A large share of Iran's child labourers are Afghan immigrants' children [17–19]. As a result of illegal immigration and a lack of citizenship rights, many immigrant children are more susceptible to engaging in harmful works like scavenging [20]. According to Vameghi et al. [21], children's ethnic backgrounds are associated with the type of labour they choose, making uncommon activities like scavenging and begging more likely among Afghans.

Iranian children are less likely to engage in unconventional work because of its low social status and acceptance, and even among Afghan children, scavenging is considered a low-level occupation. Meanwhile, studies show that children who collect garbage in the Mallard Mill district work both day and night shifts, but, due to the humiliation, younger children—who are less likely to be detained and deported—work during the day and older children start collecting garbage in the streets around midnight [21].

Scavengers collect garbage from public and private buildings, streets, garbage dumps and other places. Paper, cardboard, aluminium, glass, electrical garbage, plastics, metal and bread are among the goods they gather. In the dearth of conventional employment opportunities, they look for work in the informal waste-management sector as a source of money and a livelihood; thus, scavenging is the business of the urban poor [22]. The majority of them are self-employed or work in family units, and their activities often include hard labour and bring them minimal education and incomes [5, 10].

Garbage collectors are often seen as victims of globalisation, modernisation processes and neoliberal systems. Meanwhile, certain social groups, particularly municipal authorities and private waste-management companies accuse scavengers of stealing their declared property, the urban garbage. Also, for many national and local authorities, scavenging is incompatible with the idea of modern cities [23].

A large number of studies point to the conditions of exploitation of labour in this sector. Garbage collectors, including children, work under extremely exploitative conditions. They generally work in the unregulated informal economy, where there are no labour laws or rights. The absence of security and the poor working conditions are foundations for the informal sector's survival, because of relatively low incomes [24]. There is evidence that thousands of children work informally in landfills, usually near or inside landfills with very poor housing conditions and minimal infrastructure for drinking water, sanitation and safe living environments [25]. Scavenging, according to Batool et al. [26], is one of the most exploitative, inhumane and immoral economic tasks, because the working class is one of the most vulnerable and has to work in the unregulated informal-labour market. In a study by Malik et al. [27] on the lived experience of Afghan refugees who scavenge in Pakistan and their involvement with government officials, it was found that these refugees are one of society's most vulnerable groups. Malik, Lyndon and Wong demonstrate how garbage collectors are subjected to prejudice, harassment, extortion and detention by police officers. As noted by Isari and Shojaeizand [28] in their case study on Afghan waste pickers in Tehran the lives of these people are often troubled by interrogations and bribery.

Research methodology

This study looks at scavenging in Tehran and employs a qualitative methodology technique called grounded theory, which aims to uncover or construct a theory from data and is an effective approach to forming a theory on scavenging children in Tehran.

To understand this phenomenon, information and data were gathered using a semi-structured interview technique. All of Tehran's 22 districts were examined, and some of the district's garbage collectors were interviewed using purposeful and sometimes convenience sampling methods. The interview group conducted both area sampling and interviews with garbage collectors. The duration of each interview varied from 15 to 45 min. The interviews were performed over the course of three months, half of which were 'in-depth' or 'semi-in-depth', and the other half were 'surface level' interviews.

To obtain a better understanding of these people's lives, garbage collectors' districts and communities in specific areas of Tehran (recycling sites) and the suburbs of Tehran (garbage dumps) were visited and observed, and interviews with some of the people were conducted. Although garbage-collecting children were the primary population, some adults in each area were interviewed to learn more about common interactions during scavenging work.

A total of 302 interviews were conducted, more than half (167 interviews) involving child scavengers under age 18. The cohort was comprised of 290 Afghan males, 9 Iranian males, and 3 Pakistani males between the ages of 8 and 20. Specifically, 6 participants were age 10 or younger, 69 were ages 11–14, 91 were ages 15–17, and the remaining 136 were age 18–20. The large number of interviews conducted was due to the fact that scavenging practices in each region of Tehran could be affected by local variables. As a consequence, new insights and experiences emerged during the research in different areas, necessitating extensive interviews with garbage collectors across all 22 municipal districts, as well as multiple participants in each district. Additionally, some supplementary interviews were conducted briefly with non-scavengers directly involved with the garbage economy, such as garage owners who housed scavenging teams or recycling centre employees. These adjacent perspectives helped provide a holistic understanding of the context surrounding child scavenging. The myriad interviews illuminate the phenomenon from diverse vantage points.

The interviews were conducted primarily in Farsi (Persian), which is widely spoken and understood by the participants across nationalities. Farsi is an official language in Iran and Afghanistan, and is also commonly spoken among immigrant groups in the region. The interviewers

were native Farsi speakers, enabling clear communication with respondents. For Afghan participants, Dari is commonly used alongside Farsi, with the two languages being closely related and largely mutually intelligible. While participants' individual proficiencies in Farsi varied, interviewers were attentive and adaptive to ensure comprehension. Very few participants were completely unfamiliar with Farsi. In the rare cases where respondents struggled with certain questions in Farsi, interviewers would rephrase using simpler vocabulary and grammar or provide explanatory examples to ensure effective understanding. The linguistic competence of the trained interviewers facilitated in-depth discussions with participants of diverse backgrounds. Conversations flowed smoothly, with respondents appearing engaged and articulate in the interviews conducted in Farsi, their lingua franca.

Finally, to gain a better understanding of the field of children who scavenge, the technical literature in this field was reviewed and analysed.

The data were analyzed using a three-stage coding method [29], resulting in the formation of a background model for scavenging in Tehran. This model is the result of open and axial coding of the research data. According to Corbin and Strauss, grounded theory is valid because it is built on research data.

To improve the validity of the research, the research team was organized to collect reliable data by interviewing people from various regions, and members of the team collaborated and supervised each other at all stages, particularly during data collection and analysis. Finally, experts in the field of child-labour studies reviewed the report and their suggestions and opinions were considered carefully.

Findings

Demographic characteristics

In terms of nationality, the sample of scavengers was 96% (290 people) Afghans, 3% (nine people) Iranians, and 1% (three people) Pakistanis.¹ They were all male workers.² The majority (95.5%) of Afghan scavengers were from Herat

¹ Because the number of Afghan garbage collectors is higher than other nationalities and their scavenging models vary, the analysis of the target population of this study will be limited to this group, i.e., scavenging by people of Afghan nationality.

² Girls from Pakistani households were observed collecting garbage around their houses with their brothers, but they did not professionally scavenge like other children. It should be noted that, if the current economic decline continues and poverty worsens, in the near future we will see the entry of greater numbers of girls and women to this field, as we now see a number of women engaged in scavenging.

province and the rest from other provinces and cities such as Balkh, Badakhshan, Faryab, Badghis, Ghazni and Maidan Wardak. Most of them (89%) had illegally immigrated to Iran, while only 11% had entered Iran legally.

As for the ages of the cohort, 2% were ten years of age or younger, 23% were between 11 and 14 years of age, 30% were between 15 and 17 years of age, and the rest were older than 18 years of age. The average age of the children was 14.2 years.

10% collected less than 50 kg of garbage each day, 27% collected 51–100 kg, 24% collected 101–150 kg, 17% collected 151–200 kg, and 21% collected more than 200 kg. 63% of garbage collectors sold their garbage for 2000 to 4000 Rials per kilo, 21% for 4000 to 6000 Rials, and 16% for 6000 Rials or even more.

21% of them work 4–8 h per day, 46% work between 8 and 12 h, 23% between 12 and 16 h, and 10% more than 16 h.

According to estimates, more than 15,000 people in Tehran are engaged in scavenging, which means approximately 5000 of them are children. The Deputy Minister of Waste Planning in Tehran said:

However, if we take the entire city of Tehran, there are around 15 thousand people, who are dispersed among the many districts and regions in Tehran. A region may have 200 scavengers, while another region may have only 20.

Tehran, you see, has 122 regions. I multiplied the possible number of persons working in these fields by 122. . . . Now, among the 15,000 people working in this field, I want to guess, without researching, how many of them are children. I don't believe there are more than 5,000; one-third of those who work are possibly children, assuming the child is 18 years old or younger.³

Fields of child labour

Three important contexts contribute to the formation and rise of scavenging among children in Tehran, which are:

1. the economic contexts, such as poverty, in Afghan society and among many Iranian households, as well as the importance of the garbage economy;
2. socio-cultural contexts in the family setting, such as child marriage and high levels of childbearing, and

³ Using another method, the number of garbage collectors was estimated to be 13,968 persons, and the number of garbage-collecting children was estimated to be 4,656 (see Association for the Protection of Children's Rights, 2019 [1398], 33–23).

- social networks such as family and acquaintance networks; and
3. policy contexts that point to discriminatory laws and approaches to waste management in Tehran.

These three components are interconnected and will be discussed further below.

Afghanistan has a population of 37 million people, of whom 75% live in rural areas and more than 60% are illiterate. It is one of the poorest countries in the world. Afghan society has experienced growth in its economy in the past decade, but this growth has not resulted in a poverty reduction. More than 36% of the population lives below the poverty line—this is the population that is not able to meet many of its basic needs [30, 31]. Poverty has been exacerbated by the ongoing war in Afghanistan.

The majority of scavengers are from Herat province, an Afghan province near the Iranian border and one of the poorest in Afghanistan. Poverty has driven children to migrate to Iran to financially support their households, and they join the scavenging cycle via their social networks. These are the children who move to Tehran to scavenge with their families, relatives and friends. In other words, these networks facilitate their entry into such work.

‘I came from Afghanistan with my brother, uncle and cousins,’ one of the children explained. ‘They were already here. There was no work in Afghanistan, so I moved here to work with them.’

Two of the causes of poverty in families and the consequent child labour are early marriage and high birth rates. Although the birth rate in Afghanistan has declined in recent years, it remains high at 4.64 children per woman in 2016 [32, 33]. One of the garbage collectors commented on this:

Our family now has 20 members; we are six brothers, ten sisters with four parents. I have three mothers, with one father. My father has three marriages, so we now are a total of 16 siblings.

Marriage traditions in Afghanistan and the city of Herat, especially early marriage, place additional pressure on children to join the labour cycle. According to interviews with garbage collectors, the majority of them have married early—younger than 18 years of age—since a girl of the same age is often ‘marked’ for them by family and acquaintances. Due to cultural conventions, the groom is required to give a significant sum of money to the girl’s father as a ‘tribute’ (*pishkesh*) to marry her. The groom and his family also have to cover other wedding costs such as the ceremony and accommodation. As a result, the child is forced to labour for years to finance the marriage. One of the children in the garbage dump said:

I have a fiancée. I have to pay 1,500 million Rials to my father-in-law. A woman can be bought among us. If she comes without a dowry, we must pay 350 million to the father of the bride, but if she is with a dowry, you have to pay one milliard Rials or more to the father of the bride.

Afghans must labour and earn money to pay for their marriages, particularly the money given to the girl’s family. In many situations, this leads to children immigrating to Iran and joining the scavenging labour market; so, garbage collection serves as a source of revenue to meet early-wedding expenses. Also, discrimination against immigrants, particularly Afghan immigrants, is driving them to work in low-wage jobs such as garbage collection. The Foreign Employment Guideline, which identifies the four occupations that foreign nationals are permitted to pursue in Iran, is an example of this.⁴ Afghan citizens can only work in four main occupational groups, according to this regulation: construction, kitchen, agriculture and other vocational groups. Waste disposal and chemical recycling, for example, are included under other ‘vocational groups’. There is also a list of special jobs in Tehran for Afghan citizens, including garbage recycling, waste separation and metal- and plastic-waste transportation [34].

According to the Tehran Waste Management Organisation website, the city generates 7,500 tons of trash every day, with dry waste accounting for 35% of it. According to the same website, there are two types of urban garbage-management: official and informal management. In the official sector, the municipality of Tehran collects separated dry waste from Tehran citizens at the source in three ways: (1) recycling booths; (2) the weekly delivery of collected dry waste to Tehran Municipality contractors; and (3) mechanised water tanks—1100 L. According to the deputy head of Tehran’s waste-management department, the municipality collects about 400 tons of dry garbage every day, or 15.26% of the total waste, and the rest is collected by the informal sector.

Although state institutions and legislation consider the informal sector to be illegal, it employs a significant number of people, including children. The inefficiency of the formal sector in the field of municipal waste-management, high turnover, high profitability, low cost for employers and contractors, failure or inability of employers to monitor the rules of how to collect waste, and non-compliance with waste-collection rules by contractors are among the factors that contributed to the formation of this sector.

⁴ A Farsi version of this is available on the website of the Ministry of Cooperatives, Labour and Social Welfare at https://www.mcls.gov.ir/icm_content/media/image/2019/01/246612_orig.pdf.

Scavenging and its social relations

Due to the new agenda, the Tehran Municipality has outsourced and privatised many of its operations, including garbage collection and separation, to the private sector and contractors. This move has lowered the municipality's social responsibility as a public institution, specifically for waste collectors. As an example, according to paragraphs 6–33 of the Contract for the Transfer of Dry Waste Collection Activities (2012), the municipality, as the employer, is not accountable to third parties for losses caused by the contractor's performance. The Tehran Waste Organisation has also delegated the task of handing over and supervising contractors to the municipal districts and regions.

Contractors have contributed to the establishment of the informal sector and the exploitation of children in numerous ways.

It should also be highlighted that the municipality, the waste-management organisation and especially the contractors all want to make the most revenue possible from this waste-collecting system. Indeed, the municipality delegated many of its responsibilities to private-sector contractors, but, according to the Guidelines for Monitoring Dry Waste Collection Operations (2012), numerous tasks have been identified for the municipality and its affiliates, including overseeing the work of contractors, which they frequently fail to do, and they are limited to charging penalty fees. On the other hand, because a contractor's goal in hiring illegal labour and children is to get cheap labour and thus make more money, and because these contractors use Afghan migrants and children to collect garbage, they avoid many of their legal obligations, such as insurance, providing work tools and equipment, providing adequate housing and so on.

As previously stated, the contractors work with or employ garbage collectors on a 'custom' or shareholding basis in the afternoon shifts. 'Custom' refers to a contract between scavengers or their 'master' and the municipality's district contractor or their agent, to whom waste collection and recycling is entrusted. The garbage collector or their 'master' is required to pay a monthly charge under this contract. As a result, the garbage collectors are permitted to gather waste in the defined region by the contractor. Under this contract, the regional manager receives a photograph and creates an identification card for each worker, so that if garbage collectors come across patrol officers or contractors in the region, they can identify themselves and demonstrate that they are regional workers. An 18-year-old who scavenges told the interviewer,

The Recycling Company used to cost us 10 million Rials for working in the region [. . .]. Now they take 27 million a month. The master takes a photo of us;

the management makes a card for us with the photo, a copy of which is available in their cars.

Another type of employment contract is a share or percentage between the employer and the contractor. In this type of contract, the master no longer pays the contractor a specified monthly amount but determines from the outset what percentage of the waste collected should be for the master and what percentage should be for the contractor, or whether during this contract the workers should sell the waste to the contractor for a certain price. The price is set by the recycler and the contractors and not by the worker. In this case, a 19-year-old garbage collector stated,

This time, 40% of it belongs to the master and 60% to the recovery agency. He does not take any money; it is just a percentage. The master must pay our money from this 40%.

One of the children who scavenges in the Shahrak Gharb (located in the affluent north-western district of Tehran) told the interviewer about the sale price of garbage to contractors,

The prices of different materials in garbage vary: 7,000 Rials per kilogram of plastic, 9,000 Rials per kilogram of cans and tins, 4,000 Rials per kilogram of waste metals, 3,500 Rials per kilogram of cardboard, 2,500 Rials per kilogram of waste glass, 4,000 Rials for nylon, and 7,000 Rials for plastic covers.

According to this account, garbage collectors in the informal sector sell garbage to contractors or their representatives at set prices, which is quite similar to working relationships in recycling centres in the formal sectors of urban regions. Contractors and their agents determine the sale prices of waste and the customs prices, making labour relations in the informal sector entirely exploitative. Based on interviews with garbage collectors and according to the areas in which they work, a garbage collector pays the contractor between 25 and 40 million Rials per month. Furthermore, based on the sale price of garbage and the daily amount of garbage collected by each worker, the average daily income of a garbage collector is 710,000 Rials. Since most of these people state that they rest one day a week, their monthly income can be estimated to be 18.6 million Rials.⁵

Garbage collectors are generally organised into kinship networks. These networks provide information to incoming Afghan immigrants and help them integrate into the waste cycle. They also use the same networks to organise duties when collecting garbage. Their accommodations are allocated according to the same networks, especially in the dumps in Tehran's southern districts. For example, when

⁵ All these data are for 2019 [1398 in Persian calendar].

these people rent a piece of land to store and transport garbage and carry out separation work, they divide and use the land among themselves. Most of the time these collaborative networks are close relatives of each other. One of the participants told the interviewer, ‘Now there are three of us. Everything is loaded by us. My uncle cleans the load, and my cousin and I collect more.’

In this narrative, the phrase ‘there are three of us’ means that these three people have rented part of a garbage site (in a garage)—where about 50 people are working—for themselves and are working on it. The three have formed a workgroup for themselves that is based on ethnic relations.

Scavengers use such tools and equipment as buckets, baskets, hand-carts and vans to collect waste. In the morning shift, scavenging is done by car under the supervision of recyclers. Using a pickup truck to scavenge is easier than using other tools, and the volume of garbage retrieved is substantially greater. These vehicles are only available to those employed in the official sector, not to those working in the informal sector. Another group of scavengers collects trash with hand-carts or trollies. In some instances, the ‘masters’ provide these types of work instruments to their workers, who then either pay their ‘masters’ money or give some garbage to them to cover the cost of wheeled tools. One of the issues that garbage collectors face while using hand-carts is that, if they are working in the area on the days that the municipal officials visit, their tools, together with their loads, are confiscated and they are left unemployed until they can find new tools. In this regard, we can quote a 19-year-old garbage collector who said,

City officials take my cart when they see me. Sometimes he swears, shouts and takes my cart. I buy another hand-cart [. . .]. So many times. So far 20 or more carts were taken. I pay 1.8 million Rials for every cart.

The other group of scavengers collects garbage with shoulder sacks. They carry a huge sack on their shoulders and backs, which they fill with garbage. Compared to other carrying tools, these sacks can collect significantly less waste, and transporting it is far more difficult. The municipality has prohibited the use of other tools, such as hand-carts, in some regions, forcing scavengers to collect and carry garbage on their shoulders. When asked why he didn’t use other carrying tools, a 16-year-old boy who was picking up trash responded, ‘I collect 100 or 120 kilos a day [...]. Hand-carts are not allowed here; otherwise, I would have collected 200 or 300 kilos.’

The main tool for some garbage collectors is a large bin with wheels. The recycling management system has equipped workers in some regions with large blue bins with four wheels, and if workers in these regions use other tools to collect garbage, the recycling management system will

fine them. A 16-year-old garbage collector said, ‘The municipality gave these bins to Basir, who gave them to us. We fill it three or four times a day.’

Risks and consequences of scavenging

Scavenging is associated with long working hours and high work pressure, poor health conditions and environmental pollution and, as a result, such problems as endangering the physical health of the workers, workplace injuries and accidents, conflict, psychological pressures, etc. The most important of these risks and their consequences are discussed below.

Health hazards

These dangers range from harm, injury and disease to death. Manual scavenging and the search for dry waste are accompanied by the risk of directly touching broken and sharp objects like pieces of glass and metal, increasing the risk of injury and damage to the hands. A 15-year-old who scavenges told the interviewer: ‘My hands were cut several times, by some piece of glass or metal, by syringe. They are so sharp. Days ago, a syringe hurt my hand; I could not work for six days.’ When asked if they had ever been hurt while working, 73% of garbage collectors said yes. Children often have little prior experience with injuries or the healing process, and they do not employ safety equipment such as masks, clothes or gloves. Although 68% of garbage collectors wear gloves, the gloves are of poor quality. Some of them, for example, have found their gloves in trash cans or have been unable to use them due to wetness or sweating. Because of the high cost garbage collectors rarely seek medical assistance when they are wounded.

In response to the question, ‘Have you ever been wounded while working and how did you treat it?’, one of the garbage collectors said, ‘Yes, once a needle opened a hole in my hand; it swelled. I put some *neswar* [some form of narcotic common among Afghan refugees] on it, and it healed a bit. Then we went to the doctor, and he demanded 1 million Rials for a visit.

‘I don’t do anything special,’ another 13-year-old waste-picker said, talking about his wound treatment. ‘I find in the trash some clothing pieces to tie the wound.’

Diseases

Infections and other incurable diseases can result from the employment of inappropriate procedures. Sometimes workers get serious skin diseases during garbage collection. This is a dialogue with a 12-year-old child:

What happened to your face?

This is leishmaniosis.

Did this happen because of your work?

Yeah.

Did you go [to the] doctor?

I went once. I went and he said it was leishmaniosis. They shot five needles; so far I'm not better. They appeared suddenly here; my face was fine when I was in Afghanistan.

In some cases, contact with debris can cause illnesses such as colds, which can deteriorate and turn to bronchial problems if not properly treated. Furthermore, the bad smell of debris makes children ill, preventing them from working for several days. Scavengers also suffer from many maladies as a result of their working and living conditions, including kidney pain, earaches, asthma, back pain and skin diseases. Many physical problems for scavengers include working in adverse weather, lacking proper and safe work equipment, living in polluted and unhealthy areas, occasionally drinking unsanitary water, poor nutrition, irregular and inadequate sleep and long working hours.

Difficult working conditions

Garbage collection causes difficulties and hardships such as long working hours, heavy load-handling and the consequent excessive fatigue. A person may labour from early in the morning until late at night; for example, he may sort the accumulated garbage in the morning and then begin waste picking in the evening and into the night. In addition, their lodgings are of poor quality. All of these factors can contribute to a worker's physical and mental exhaustion over time. Due to the high costs of illegal immigration, waste collectors must often work longer hours to recover these expenses. Long work hours deprive workers of rest, preventing them from getting sufficient sleep. A 13-year-old described the stressful work environment and insomnia as follows:

It's not difficult, but cleaning it is. You cannot, for example, sleep in the morning when you have to clean these. Your eyes are closed, you are sleeping and you do not want to wake up. However, you must do the job.

Accidents at work

When children are unable to bend the trash cart, they climb up or get inside it; similarly, when children move and bend the trash bin for scavenging, the bin may collapse on their feet and hurt them. A 15-year-old boy told the interviewer, 'We can't get inside because we're too short. Once, when I tilted the bucket, it fell and hurt my leg.' On the other hand, many garbage collectors are carried into the city by trucks from their residences in the southern parts of Tehran, and, when they return, they are taken by the same trucks, this

time loaded with garbage, and they have to sit on the pile of collected garbage. In these situations, it is highly probable that they will encounter dangers or accidents. According to one,

It's hard. We have to work until bread time; we have neither sleep nor bath. How should we not be bored? Everybody who walks all day gets bored. It's so hard. Small children between the ages of ten to twelve work here. Two or three people sit in the cabin; the rest have to sit on the pile. If it is raining, or if there is a rain of stones [hail], you have to sit on the pile.

[And isn't it dangerous?]

It is. Tree branches hit you, blinding you. Someone falls.

[Have you ever sat on the pile?]

Yes, I am always there.

[Can you say how it feels?]

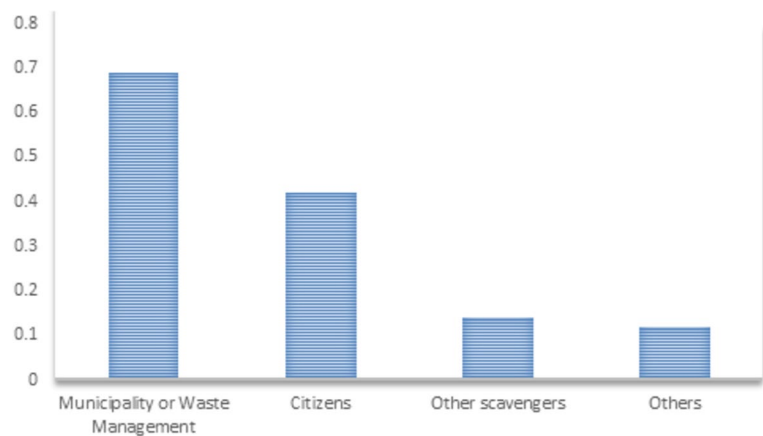
When you get on the pile it is cold, and then tree branches hit you. Coldness is always there.

Physical pressures

The physical strain and injuries caused by scavenging jobs are enormous. Bearing heavy loads and severe fatigue can cause damage to the skeleton, muscles and skins of waste pickers. Informal scavengers use such tools as huge sacks carried on the back, or hand-carts. They have to bear the weight of the load when moving on streets to collect more garbage. Children's development is affected by these conditions, which are more difficult for them to tolerate and have a variety of consequences. Using hand-carts has its own set of dangers, and they are not always available. In other regions of Tehran, such as the northern areas, where the ground is steep, employing hand-carts is not always practicable, and they risk losing control and colliding with cars. One of the garbage collectors said, 'Hand-cart is dangerous here. The ground is hilly, and if you leave it, it will shift and hit a car. Then you have to pay for the damage.'

Becoming victims of crime and violence

While gathering waste in the city, scavengers are vulnerable to many sorts of criminality and violence. According to research observations, garbage collectors are victims of a variety of crimes, the most typical of which is theft of their property at their place of residence, theft of their property while collecting waste in the city, and theft of their garbage packs while working. Because numerous participants claimed during the interviews that their 'property' or 'load' had been stolen, the seriousness of each of these crimes can be rated as high. A 17-year-old boy talked about his experiences in these words: 'Our garbage and properties

Fig. 1 Perpetrators of violence against garbage collectors

are stolen many times. Iranians do this with cars. They have private cars.’ When asked about the hard part of the work, he answered, ‘The hard part is here. You work all day and gather, just to discover that they have been taken. This breaks the heart.’ It is also highly probable for them to be robbed at home. A garbage collector said,

One night, our members slept here, and in the morning we found that their phones had been taken.

[Was the thief an outsider or from among the kids?]

They’re not from us.

Garbage collectors are subjected to various forms of violence at work; many of these acts of violence are committed by contractors from shady work organisations. 73% of garbage collectors expressed that they had been affected by violence. Among these, 76% had been subjected to psychological violence and 69% to physical violence. Garbage collectors are more likely to experience violence from contractors, citizens and other garbage collectors. One worker elaborated:

This happens a lot. If somebody comes here from Region 5, he will be punished. If I go to region 2, they would catch me and beat me. Hand-carts are not permitted in Region 5, and the worker from Region 2 will be punished there. We shall be beaten if we operate in any other Region (Fig. 1).

Another common form of violence is when official agents attack and destroy scavengers’ garages or landfills, which is a threat to their collective security. In some cases, official institutions, such as the judiciary, police, municipalities and others, tolerate the phenomenon of illegal garbage-disposal sites and refuse to destroy them; however, when they come under significant pressure, they also may raid and destroy these locations. The authorities frequently refer to health and environmental considerations to demolish these facilities. Official entities, particularly the Tehran Municipality, are responsible for the construction of such centres in Tehran,

given the ineffective waste-management method they have devised and implemented. Furthermore, the Tehran Municipality destroys these centres only when it is under pressure from outside forces.

Unsafe housing and malnutrition

Another aspect of scavengers’ lives that involves significant risk is the way they are lodged and given access to urban services. The lodgings of morning workers are located in waste-dumping areas, and, despite the high density of housing, they have access to some urban facilities and services. The lodgings of afternoon workers and those who work in the informal sector are located inside the garbage dumps, the brick knils or the garbage-separation sites, which are mostly in the southern areas of the city such as Ashrafabad, Mahmoudabad and Khalazir in Tehran. In many cases, they live in makeshift housing and impoverished shelters next to accumulated garbage, with limited access to basic services. According to observations, the quality of life for those living in these circumstances is exceedingly poor, if not cruel. The following is a scavenger’s depiction of accommodation:

[Whose land is this?]

It belongs to a servant of God. The buildings are old; we rent the land. Here we rented a kiln for three tomans and paid it [meaning 30,000 Rials].

[Does it have water?]

No, it does not have fresh water. There is a well for water, but its pressure is low, and it burns the pump. A vehicle brings us drinking water. We buy a bucket – a bucket for 15,000 Rials.

[What about a bathroom?]

No, you have to go to Islamabad. They take 60,000 [Rials] for simple washing. We go once a week.

[How do you warm your sleeping place?]

With gas.

[Doesn’t it threaten you?]



Fig. 2 Pictures of garbage dumps

No, there is no danger. There are so many holes [for the resulting dangerous gases to exit] (Fig. 2).

Scavengers have limited access to basic living facilities, such as water, bathrooms, safe heating and the like. 77% of garbage collectors expressed they have to buy drinking water, and 49% of them bathe only once a week. They frequently use gas canisters to keep their living spaces warm, but put them out at night to avoid suffocation. As children work long hours during the week, no energy and time remain for their more basic affairs, including schooling and playing; scavenging and its related tasks rob them of their childhoods. On holidays, they either clean themselves or sleep, but sometimes they have to continue working. Working children often suffer from malnutrition, they have a limited selection of foods to eat and, in some circumstances, while working hard, they must skip a meal.

Social vulnerability

Immigration, hard work, poor living conditions, exposure to different types of violence and pressures, along with negative emotions will make these young workers vulnerable to a variety of social problems, including drug use. Garbage collectors commonly use *neswar* (generally named *nas*), a narcotic chemical, while other drugs are frequently used. One of the children said,

They consume a lot. We have two persons who shot a lot.

[What do they consume?]

Glass and drugs.

This does not mean that all who scavenge use drugs, but such behaviours are observed among them. Even though children have not been spotted using drugs, their hard work,

combined with witnessing such behaviours in the workplace, can make them vulnerable.

Summary and conclusion

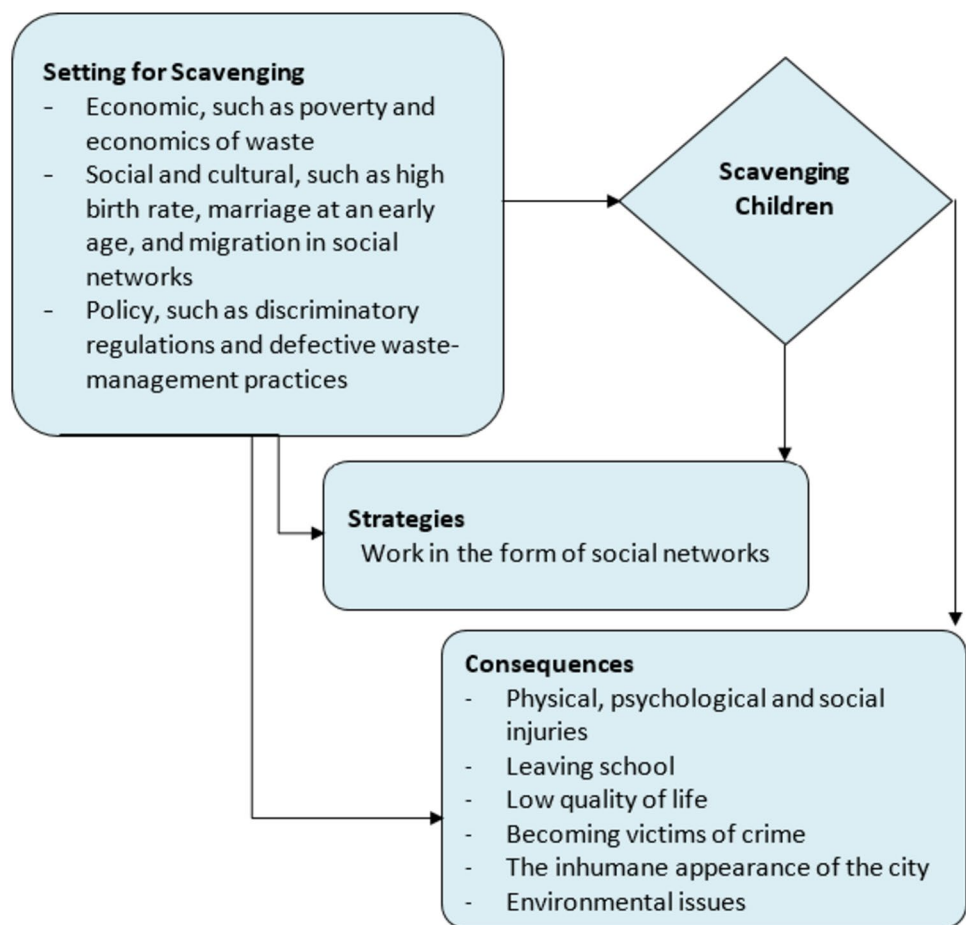
Field observations in this study identified poverty, false traditions, discriminatory laws and regulations, inefficient urban waste-management systems, an absence of effective and codified programmes to inform citizens to separate waste at the source, insufficient infrastructures for garbage collection, and large volumes of garbage production as having contributed to the emergence of an informal sector of scavenging, in which children and others are forced to labour. Furthermore, employment contracts between garbage collectors and local contractors, as well as various aspects of scavengers' work, such as garbage collection, work licences, the financial processes surrounding garbage collection, workspace tools and equipment, working hours, waste sorting and so on, are found to be faulty and entangled in a variety of issues and problems.

Causes of child scavenging in Tehran

This study identified several key factors leading to the rise of child scavenging in Tehran:

- Poverty in Afghanistan is a major driver, forcing children to migrate to Iran for work to support their households. Early marriage and high birth rates exacerbate poverty.
- Weak waste management policies and privatization in Tehran have allowed an unregulated, informal waste economy to emerge, exploiting cheap child labour.

Fig. 3 Background model of children's scavenging in Tehran



- Discriminatory laws restrict work options for Afghan immigrants, funnelling them into low-wage informal jobs like scavenging.
- Scavenging networks facilitate entry of Afghan children into the work, connecting them to relatives already engaged in scavenging.
- High volumes of municipal waste and insufficient waste separation enable the business of informal garbage collection.
- Contractors maximize profits using cheap informal child labour, avoiding regulations.

Repercussions of child scavenging

- Scavenging has severe detrimental impacts on working children:
- Hazardous work conditions, long hours, and heavy loads lead to health problems, injuries, fatigue, and risk of accidents.
- Children face regular violence and abuse from contractors, citizens, and other scavengers.
- Scavenging deprives children of education and normal childhood development.
- Children have unsafe, unsanitary housing with limited access to basic services like clean water, healthcare, etc.
- The difficult circumstances make children vulnerable to social problems like drug abuse.
- At a societal level, child scavenging signals fundamental violations of child rights in Tehran. It also creates an array of environmental issues in waste dumps and landfills.

The model below illustrates the context and implications of waste management in a logical process. Many elements of the model were explored and discussed in previous sections, but some elaborations are necessary. In the context of consumer society, it should be emphasized that the causes of scavenging are factors such as the excessive consumption of over-covered products, as well as insufficient infrastructure and education for waste separation at the source, resulting in a significant volume of unseparated garbage. While there are relatively good labour regulations, such as the call for urgent action to end the worst forms of child labour and guidelines for monitoring dry-waste collection operations, there are certain limitations to their implementation. While law-enforcement methods often emphasise the

full implementation of all regulations that ban the employment of children for work, child labour has turned into a significant problem as a result of ineffective implementation of these regulations (Fig. 3).

Scavenging has some negative repercussions for a child, including jeopardising their health and ruining their childhood, an important period in their life when they should be playing and learning. At a higher level, the consequences of scavenging include a set of social and environmental problems that we observe at the urban level, most specifically in garbage dumps and landfills. Scavenging has dehumanised some innocent aspects of Tehran, indicating that the most fundamental rights of children in this city are being violated.

Based on this study, here are some suggestions for improving the conditions for people who scavenge and eliminating waste work as one of the worst forms of child labour.

In general, there are several policy approaches to child labour, as follows.

1. *Welfare-based approach*: This strategy focuses on improving scavengers' working and living conditions, lowering their usual level of challenges and addressing their needs. Scavengers and garbage pickers are typically believed to be impoverished people in need of assistance. This approach does not aim to change the status quo. Examples of interventions based on the welfare approach include: the provision of sanitary and health-care services; the provision of safety and protective tools and equipment; the organisation of recreational activities for children; and the provision of housing for families.
2. *Growth-based approach*: This strategy aims to help people enhance their abilities by providing financial, physical and educational resources. The general assumption of this approach about scavengers and garbage collectors is that they are poor people with qualities who should be empowered and given opportunities to develop these abilities. Examples of growth-based initiatives include the provision of daycare facilities; the provision of formal and non-formal education and vocational training; the provision of alternative employment; and credit and income-generation opportunities.
3. *Rights-based approach*: This strategy aims to create a better political space for scavengers and to strengthen their position as a group in society. The first step is to give voice to the target community and make them visible. In this strategy, scavengers are perceived as people who need to be recognized and given the right to better lives. Examples of rights-based initiatives include organising, lobbying and inciting political participation (for example, organising garbage collectors within cooperatives to reduce the influence of intermediaries and increase their income); raising awareness of child labour in communities and in relation to legal reforms; and improving the implementation of labour laws. ('Legal reform' refers to the improvement of conditions in such things as working hours; the minimum work age; minimum wages; occupational health and safety—e.g., noise levels; health insurance; and so on.)
4. *System-based approach*: This strategy aims to change the waste-management system in such a way as to integrate the waste workers in the informal sector with the formal work system. Integration leads to formalising the activities of informal scavengers with other stakeholders, especially formal stakeholders such as local governments or the private sector. Involving scavengers in formulating urban and national waste-management policies is an example of a system-based intervention (International Labour Organization: 2004).

Addressing scavenging and child scavenging in Iran requires a series of policy interventions both in Afghanistan and for waste management in Tehran. Poverty in Afghanistan is a major cause of migration to Iran and the rise of child labour, and the main roots of poverty lie in such factors as an unfair distribution of opportunities among social strata or classes, economic sectors and geographic spaces; the concentration of poverty in rural areas; poor educational opportunities and health infrastructures in some areas, especially rural areas; unemployment; early marriage; the high birth rate; corruption; discrimination; abuses of power; war and insecurity; and natural hazards. Therefore, better readiness for natural disasters, improved educational opportunities, particularly in rural regions, and a more equitable distribution of resources can all have good impacts on poverty reduction in Afghanistan.

In Iran, the expansion of the informal sector and the defective waste-management methods in the Municipality of Tehran and the Waste Management Organisation have created grounds for the rise of child labour. In this context, the Ministry of Labour, the Municipality of Tehran and the Waste Management Organisation are asked to integrate the informal waste-collection sector into the formal sector. Under these circumstances, both the conduct of contractors can be further monitored and the exploitation of children for scavenging can be avoided. It is possible to combat poverty by merging the informal sector into the formal sector, abolishing oppressive laws (such as 'customs'), enhancing the quality of employment and career opportunities for adult employees (such as working hours, income and insurance), and supporting workers. Adopting the International Labour Organization's Transition from Informal to Formal Economy Recommendation (No. 204) (2015) can help in this regard.

Tehran Municipality and the Waste Management Organization have not yet succeeded in implementing and enforcing waste-recycling rules—whether intentionally or accidentally, they have certain inadequacies. Therefore, the municipality

and its supervisors, at various levels, are urged to carefully implement the approved laws and regulations, especially paragraph 26.

Also, the Islamic Council of Tehran is urged to oversee waste-management procedures concerning the employment of children in scavenging.

Besides the city council, a framework for oversight of civic institutions can be established.

It should be highlighted that to reduce child scavenging, short-term priority should be given to harm-reduction interventions, while the long-term plan is to abolish child scavenging by enabling children and empowering households.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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